

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Claim 8 is re-presented as an independent claim.

Listing of Claims

1 (Withdrawn). A process for manufacturing a semiconductor device comprising the steps of:

 forming a transparent film on a semiconductor substrate including a photoelectric conversion section, the transparent film having a concave portion above the photoelectric conversion section;

 forming a material film on the transparent film, the material film being made of a photosensitive material having a refractive index higher than that of the transparent film; and

 irradiating selectively a predetermined portion of the material film with rays, and then developing the material film, whereby forming an intralayer lens having a convex portion facing the concave portion.

2 (Withdrawn). The process for manufacturing a semiconductor device according to claim 1, wherein the material film is made of an ultraviolet curing resin containing a metal oxide.

3 (Withdrawn). The process for manufacturing a semiconductor device according to claim 1, wherein the material film is made of a resin containing a metal oxide, wherein the resin becomes alkali-soluble by ultraviolet irradiation.

4 (Withdrawn). The process for manufacturing a semiconductor device according to claim 2, wherein the metal oxide comprises at least one of a zirconium oxide and a titanium oxide.

5 (Withdrawn). The process for manufacturing a semiconductor device according to claims 1, wherein the material film is developed by an alkali solution containing a tetramethylammonium hydroxide.

6 (Original). A semiconductor device comprising: a semiconductor substrate including a photoelectric conversion section; a transparent film formed on the semiconductor substrate, the transparent film having a concave portion above the photoelectric conversion section; and an intralayer lens formed on the transparent film, the intralayer lens having a convex portion facing the concave portion, the intralayer lens being made of a photosensitive material having a refractive index higher than that of the transparent film.

7 (Original). The semiconductor device according to claim 6, wherein the photosensitive material is an ultraviolet curing resin containing a metal oxide.

8 (Currently amended). ~~The semiconductor device according to claim 6~~ A semiconductor device comprising: a semiconductor substrate including a photoelectric conversion section; a transparent film formed on the semiconductor substrate, the transparent film having a concave portion above the photoelectric conversion section; and an intralayer lens formed on the transparent film, the intralayer lens having a convex portion facing the concave portion, the intralayer lens being made of a photosensitive material having a refractive index higher than that of the transparent film, wherein the photosensitive material is a resin, wherein the resin contains a metal oxide and becomes alkali-soluble by ultraviolet irradiation.

9 (Original). The semiconductor device according to claim 7, wherein the metal oxide comprises at least one of a zirconium oxide and a titanium oxide.